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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPHUS DEKKERS,
JOHANNES GOOSSENS, ROBERT VAN DE GRAMPEL,
THEODORUS HOEKS, HENDRIK DE NOOIJER,
CORNELIS VAN PEER, and GARY SMITH

Appeal 2007-3843
Application 10/798,183
Technology Center 1700

Decided: December 19, 2007

Before, DEMETRA J. MILLS, ERIC GRIMES, and NANCY J. LINCK,
Administrative Patent Judges.

MILLS, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134. The Examiner has rejected the claims for obviousness. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Claim 1 is representative.

1. An article comprising a thermoplastic composition comprising a thermoplastic resin and an inorganic biocidal agent,

wherein the thermoplastic resin comprises a homopolymer or a copolymer of a polycarbonate, a polyester, a polyacrylate, a polyamide, a polyetherimide, a polyphenylene ether, or a combination comprising one or more of the foregoing resins,

wherein the article comprises a textured exterior surface over at least a portion thereof,

wherein the textured exterior surface comprises the thermoplastic resin and the biocidal inorganic agent;

wherein the article has a biocidal metal release factor of greater than 2.5 from an exterior surface,

wherein biocidal metal release in parts per billion is measured by contacting 5 cm by 5 cm of the exterior surface with 40 milliliters of 0.8% weight/volume of sodium nitrate for 24 hours at 25° C to form a test solution, and measuring an amount of biocidal metal in the test solution in parts per billion, and

wherein the biocidal metal release factor is the amount of biocidal metal in the test solution in parts per billion divided by a product of a weight percent of the inorganic biocidal agent based on the total weight of the article and the weight percent of biocidal metal in the inorganic biocidal agent.

Cited Reference

Podszun

US 6,365,066 B1

Apr. 2, 2002

Grounds of Rejection

Claims 1, 2, and 4-19 stand rejected under 35 U.S.C. § 102(b)/103(a) as obvious over Podszun.

DISCUSSION

Background

The claimed invention relates to an article comprising a thermoplastic composition comprising a thermoplastic resin and an inorganic biocidal agent. (Specification 2.)

In one aspect, the invention includes a “method of making a textured article compris[ing] chemically or mechanically abrading an exterior surface of an article to form a textured exterior surface, wherein the exterior surface comprises an inorganic biocidal agent and a first thermoplastic resin, and wherein abrading results in an improvement in biocidal activity in the textured article compared to an untextured article.” (Specification 2.)

“One approach to the problem of providing sufficient biocidal activity is texturizing the exterior surface of the article and/or multi-layer article to produce a textured article. By texturizing the exterior surface of the article or multi-layered article, it is meant that the surface layer is roughened in a manner and to an extent effective to produce a desired level of biocidal activity.” (Specification 5.)

Obviousness

Claims 1, 2, and 4-19 stand rejected under 35 U.S.C. § 102(b)/103(a) as obvious over Podszun. We select claim 1 as representative of the rejection before us since Appellants have not separately argued the claims. 37 C.F.R. 41.37(c)(1)(vii).

The Examiner contends

Podszun et al. (abstract) disclose an antifouling coating composition. Further, Podszun et al. (col. 6, line 64 to col. 8,

line 6) disclose various binder resins for making encapsulated particles. And Podszun et al. (col. 8, line 7-27) disclose the encapsulated particles comprises a list [sic] metal-containing zeolites, which includes silver, copper, etc. Podszun et al. (col. 8, line 20-23) disclose a list [of] metal salts as well for the disclosed composition. ... Therefore, in view of substantially identical composition of the film and film thickness as disclosed in Podszun et al. and as claimed, the examiner has a reasonable basis to believe that the claimed biocidal metal release property, the exterior surface properties and texture properties, the biocidal activity, and the growth reduction as described in claim 19 are inherently possessed in Podszun et al.

(Answer 5.)

We agree that the Examiner has presented sufficient evidence to support a prima facie case of obviousness.¹ In particular, Appellants' definition of "texturized" in the Specification merely requires that the surface be "roughened". Podzun, Example 6, provides an example of the use of a finely ground biocidal organic composition in polyvinyl acetate to form a coating with a thickness of 100µm. The particles of the active substance, biocide, were visible to the naked eye and the surface of the coating was rough. (Podszun, col. 9, ll. 55-67.)

Podszun further discloses that heavy metal containing biocides including copper-containing zeolites may also be used in the disclosed antifouling paints. (Podszun, col. 9, ll. 15-27.) Thus we find that it would have been obvious to substitute the inorganic heavy metal-containing biocides described in Podszun for the organic diuron biocide of Example 6 with an expectation that the coating would be

¹ Since we affirm the § 103 basis of the rejection, we need not address the alternative § 102(b) basis of the rejection.

texturized and rough due to the inclusion of the heavy metal biocide, and the expectation that the composition would have biocidal properties.

Appellants argue that Podszun fails to teach or suggest an article having a textured exterior surface, the specific claimed biocidal metal release properties, or the killing of *E. coli* or *Staphylococcus aureus*. (Br. 5.²) Appellants argue that “[b]y texturizing the exterior surface of the article or multi-layered article, it is meant that the surface layer is roughened in a manner and to an extent effective to produce a desired level of biocidal activity.” (Br. 6.) Appellants further argue that the Specification discloses, “[a]n article may be formed by a suitable means and then texturized by mechanically or chemically abrading the exterior surface of the article.” (Br. 6.) “Podszun, in contrast, completely fails to disclose modifying the smooth surface of the coating to provide a textured surface.” (Br. 6.)

We are not persuaded by Appellants’ arguments. Appellants specifically define “texturized” to mean “roughened”. Appellants’ claims do not require texturizing by mechanically or chemically abrading the exterior surface of the article. Podszun, Example 6, provides a thermoplastic containing a biocide which provides for a rough coating. Thus the coating of Podszun meets the limitations of Appellants’ claimed article having a texturized surface. With respect to the claimed biocidal metal release properties, we agree with the Examiner that it is reasonable to conclude that the antifouling paint of

² References to the Brief throughout refer to the Supplemental Appeal Brief dated January 3, 2007.

Podszun including a heavy metal biocidal agent would have a metal release factor within the scope of claim 1. Appellants' Specification discloses that even untextured ("as such") surfaces have a metal release factor of up to 1.75, while textured surfaces have a metal release factor of up to 8.75 (Specification at 37 (Table 2) and ¶ 0099), therefore it is reasonable to expect that Podszun's rough surface would have a metal release factor of at least 2.5, as recited in claim 1.

Appellants argue the Examiner has failed to consider the comparative data in the Specification, Table 2, which demonstrates unexpected results obtained with the present composition. (Br. 11, Reply Br. 7.)

Appellants are reminded that when relying on comparative testing, the Appellants are under a duty to compare the claimed invention with the closest prior art (i.e., Podszun). See, *In re Burckel*, 592 F.2d 1175 (CCPA 1979); *In re Merchant*, 575 F.2d 865 (CCPA 1978). We agree with the Examiner that Appellants have failed to compare the biocidal release properties of the claimed biocidal composition with a composition similar to Podszun Example 6, which is the closest prior art. (Answer 9.)

In view of the above, we affirm the rejection of the claims for obviousness in view of Podszun.

Obviousness-type Double Patenting

Claims 1, 2, and 4-19 stand rejected for obviousness-type double patenting over application Serial No. 10/797,975. USPTO records indicate that application Serial No. 10/797,975 was abandoned on November 19,

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2007. Thus the obviousness-type double patenting rejection is mooted by abandonment of application Serial No. 10/797,975.

SUMMARY

The rejection of claims 1, 2, and 4-19 under 35 U.S.C. § 103 as obvious over Podszun is affirmed. The obviousness-type double patenting rejection is dismissed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

dm

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